The yellow perch volunteer angler survey has provided a wealth of information since its inception in 2008. The information provided by anglers provides a snapshot of the length frequency of the catch, both kept and released. In addition, we can determine catch per angler hour (CPAH) and harvest (only kept yellow perch) per angler hour (HPAH). Both of those values are indicators of relative abundance.

Volunteer angler surveys do contain some bias because people may not accurately remember their results or because people participating in the survey may not be representative of the entire fishing population. Another source of bias is that participants may only relate particularly successful trips. Nevertheless, the information provides valuable insight into the performance of the fishery.

Continued support from the recreational fishery is vital. The number of length measurements submitted by our cooperating anglers is outstanding. However, the low number of reports from many of the river systems decreases our ability to characterize the local fishery. For example, the Chester River fishery is one of the most popular and successful fisheries, but only 8 reports were submitted over the latest three year time period. In previous years, reports from the Chester River were among the most frequent submissions. In addition, please be reminded that even a poor day's fishing is data! Please submit reports when catching or targeting yellow perch regardless of your success.

## ANGLER PARTICIPATION

The following table summarizes angler participation since 2008. The number of anglers responding to the survey has dropped $73 \%$ since 2008, and the number of trips has dropped $65 \%$, but the number of lengths submitted by anglers in 2015 was higher than 2008. The number of river systems has also been declining ( 27 tidal systems in 2008 versus 15 tidal systems in 2015), and many of the systems have less than 5 responses.

| Year | Anglers | Trips | Lengths | Systems |
| :---: | :---: | :---: | :---: | :---: |
| 2008 | 142 | 216 | 809 | 27 |
| 2009 | 81 | 189 | 3,896 | 23 |
| 2010 | 95 | 154 | 3,259 | 22 |
| 2011 | 92 | 161 | 4,493 | 18 |
| 2012 | 38 | 106 | 1,451 | 14 |
| 2013 | 40 | 76 | 671 | 17 |
| 2014 | 30 | 61 | 426 | 14 |
| 2015 | 39 | 75 | 1,260 | 15 |

## CATCH PER ANGLER HOUR AND HARVEST PER ANGLER HOUR

The number of yellow perch caught per angler hour (CPAH) is a good barometer of the availability of yellow perch in any year. Harvest per angler hour (HPAH) is a good indication of the quality of the fishery. Even though many anglers practice catch and release fishing, a high HPAH value indicates that there are a fair amount of large yellow perch being caught. The length data provided by anglers indicated that the probability of a yellow perch being kept increases dramatically at and above 11 ", an indication of angler preference.

Yellow Perch Catch per Angler Hour (CPAH) from On-line Survey, 2008-2016 (2016 incomplete)


Yellow Perch Harvest per Angler Hour (HPAH) from On-line
Survey, 2008-2016
(2016 incomplete)


Yellow Perch Catch per Angler Hour (CPAH) for Boat and
Bank Anglers, 2008-2016
(2016 incomplete)


2013 Yellow Perch Catch per Angler Hour (CPAH) by System
$\square$ CPAH - AVERAGE


2014 Yellow Perch Catch per Angler Hour (CPAH) by System


2015 Yellow Perch Catch per Angler Hour by System
$\square$ CPAH - AVERAGE


## CREEL DISTRIBUTION

Some $62 \%$ of the yellow perch anglers responding to the survey in 2011 kept at least one yellow perch, and $31 \%$ kept between 6 and 10 yellow perch. During 2015, the percentage of anglers that kept six or more yellow perch declined to $17 \%$ of survey respondents.

Yellow perch creel distribution from on-line survey, 2011 2015
$\square 2011 \square 2012 \square 2013 \square 2014 \square 2015$


## LENGTH DISTRIBUTIONS

Length distributions of the catch can reveal many aspects of fish populations. For example, 7 " and 8 " yellow perch accounted for about $46 \%$ of the catch in 2013, and grew out to the 10 " and 11 " size classes in 2014 and 2015. This was the strong 2011 year-class growing through the fishery. The length distributions during this time period (2013-2015) also indicated a high quality fishery with about $36 \%$ of the catch greater than 10 " in 2013, and $46 \%$ and $43 \%$ greater than $10 "$ in 2014 and 2015, respectively. For earlier years, please see the previous report here.

Length frequency of kept and released yellow perch from online survey, 2013


Length frequency of kept and released yellow perch from online survey, 2014


Length frequency of kept and released yellow perch from online survey, 2015


## CONCLUSIONS AND FUTURE NEEDS

The volunteer angler survey has added greatly to our yellow perch knowledge base and has verified trends evidenced in our population models. Poor recruitment in a few of the last several years has caused a population decline, so some of these year-classes are not filling in the larger length intervals. This is demonstrated in the 2012 length distribution from the volunteer angler survey. Relatively strong year-classes, however, were produced in 2009 and 2011 which are now fully recruited to the fishery. Based on Fisheries Service surveys, the 2014 and 2015 year classes also appear to be above average and should provide enhanced angling opportunities over the next few years.

